

The rejection based upon prior art is respectfully traversed. Independent Claim 28 (the only independent claim) has been amended in several respects. The following remarks are directed to the prior art utilized in the rejections of record.

Independent Claim 28 indicates that the pyrolytic coating "comprises a layer with an emissivity of less than 0.3". The patent to Boire was not cited for this proposition.

In a rejection under 35 U.S.C. § 103, all claims were rejected based upon a combination of prior art. The only prior art expressly referenced by the Examiner relative to the feature of "a layer with an emissivity of less than 0.3" [which was only a part of clause E(iv) of claims 29, 32, 35 and 38] was the patent to Allemand et al (U.S. Patent No. 5,989,717). However, this patent relates to an electrochromic device. An electrochromic device as described, e.g., at column 1, lines 40-53 and in Examples 4 and 5 of the Allemand et al reference, appears to be an entirely different type of device, for reasons including but not limited to the use of an electrolyte, electrical conductors on interior surfaces of substrates, and a suitably active material coated on the conductors and in contact with the electrolyte. There is no basis to combine the teaching of Allemand et al with any of the other references cited by the Examiner in the 35 U.S.C. § 103 rejection. Accordingly, there is no basis to combine the teachings of Allemand et al relative to the presently pending claims.

Based on the foregoing, reconsideration and allowance of all claims is requested. Applicants' attorney sought to arrange an interview with the Examiner prior to the filing of this Amendment, but schedules did not make such an interview possible. Accordingly,

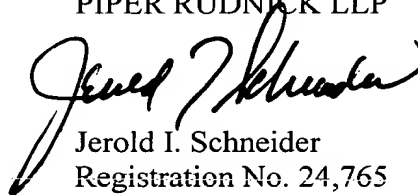
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Applicants' attorney requests an interview after the Examiner has reviewed this Amendment and prior to the issuance of another action. Applicants' attorney's phone number is given below, and Applicants' attorney would appreciate a telephone call to schedule such an interview.

Respectfully submitted,

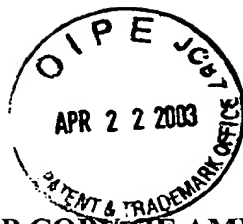
PIPER RUDNICK LLP

A handwritten signature in black ink, appearing to read "Jerold I. Schneider", is written over the printed name and registration number.

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**MARKED-UP COPY OF AMENDED CLAIMS**

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28. (Amended) Glazing comprising:

a substrate made of coloured soda-lime glass composed of main glass-forming constituents and of colouring agents, which exhibits a selectivity (LT/ET) of at least 1.1, measured with Illuminant C for a glass thickness of 4 mm; and

a pyrolytic coating deposited on the coloured glass substrate which [provides the coated glazing with an increased selectivity with respect to the selectivity of the uncoated coloured glass] comprises a layer with an emissivity of less than 0.3.

29. (Amended) Glazing according to Claim 28, further characterized by at least one of the following A through J, wherein:

- A. the coloured glass is a glass for which the transmission between the wavelengths 1000 and 1200 nm, for a thickness of 4 mm, is lower by at least 5 points (expressed as %: ratio of the transmitted radiation to the incident radiation) with respect to the transmission between the wavelengths 500 and 600 nm;
- B. the coloured glass is a soda-lime glass coloured dark grey composed of main glass-forming constituents and of colouring agents, in which glass the elements iron, selenium, cobalt and chromium are present as colouring agents in an amount corresponding to the following proportions (expressed as percentage by weight of the glass as if present in the form shown)

Fe <sub>2</sub> O <sub>3</sub>	0.75 to 1.8%
Co	0.0040 to 0.0180%
Se	0.0003 to 0.0040%
Cr <sub>2</sub> O <sub>3</sub>	0.0010 to 0.0100%

and the proportions of the colouring agents are such that the glass exhibits a total energy transmission, measured for a thickness of 4 mm (ET4), of between 15 and 40%, a selectivity (LTA/ET4) of at least 1.2 and an excitation purity (P) not exceeding 10%

- C. the coating is a coating deposited by chemical vapour deposition;
- D. the coating is such that its transmission between the wavelengths 500 and 600 nm on clear glass with a thickness of 4 mm is higher by at least 3 points (expressed as percentage: ratio of the transmitted radiation to the incident radiation) with respect to the transmission between the wavelengths 1000 and 1200 nm;
- E. the coating is [chosen from one of the following (i) through (v):
  - (i) oxide coating deposited by pyrolysis comprising tin and antimony in a molar ratio Sb/Sn of between 0.01 and 0.5,
  - (ii) coating deposited by pyrolysis comprising a conductive or semiconductive layer with a thickness of 15 to 500 nm formed from a material comprising a metal oxide comprising a doping agent in a ratio of 5 to 100 mol per 100 mol of metal oxide, the metal oxide being selected from one or more of the following: tungsten oxide ( $\text{WO}_3$ ) molybdenum trioxide ( $\text{MoO}_3$ ), niobium pentoxide ( $\text{Nb}_2\text{O}_5$ ), tantalum pentoxide ( $\text{Ta}_2\text{O}_5$ ), vanadium pentoxide ( $\text{V}_2\text{O}_5$ ) and vanadium dioxide ( $\text{VO}_2$ ),
  - (iii) coating deposited by pyrolysis which comprises an anti-reflective interferential stacking comprising, from the glass, a stacking of materials with alternatively high and low refractive indices,
  - (iv) coating which comprises a layer with emissivity of less than 0.3, in particular] a layer deposited by pyrolysis based on fluorine-doped tin oxide, [and
  - (v) titanium nitride coating deposited by pyrolysis];
- F. the coated substrate is bent and/or heat treated, in particular annealed or tempered;

- G. the light reflection factor (LR) is less than 13%;
- H. the dominant transmitted wavelength in the visible spectrum of the coated substance is less than the dominant transmitted wavelength of the uncoated substrate;
- I. the coating deposited on the coloured glass [is such that] if applied to 4 mm thick clear glass the so coated glass would have a light transmission factor measured with Illuminant C of less than or equal to 65%; and
- J. the glazing is for a vehicle of the motor vehicle or train type.

32. (Amended) Glazing according to Claim 28, further characterized by at least one of the following A through J, wherein:

- A. the coloured glass is a glass for which the transmission between the wavelengths 1000 and 1200 nm, for a thickness of 4 mm, is lower by at least 5 points (expressed as %: ratio of the transmitted radiation to the incident radiation) with respect to the transmission between the wavelengths 500 and 600 nm;
- B. the coloured glass is a green-coloured soda-lime glass which comprises the following percentages by weight of colouring agents, the total amount of iron being expressed in the form of  $\text{Fe}_2\text{O}_3$ :

$\text{Fe}_2\text{O}_3$	0.7 to 1.3%
$\text{FeO}$	0.18 to 0.27%
$\text{Co}$	0 to 0.0040%
$\text{V}_2\text{O}_5$	0.0050 to 0.1%

and which exhibits, under Illuminant A and for a glass thickness of 4 mm, a light transmission (LTA4) of between 40 and 70%, and a selectivity (LTA/ET4) of greater than or equal to 1.50;

- C. the coating is a coating deposited by chemical vapour deposition;
- D. the coating is such that its transmission between the wavelengths 500 and 600 nm on clear glass with a thickness of 4 mm is higher by at least 3 points (expressed as percentage: ratio of the transmitted radiation to the

incident radiation) with respect to the transmission between the wavelengths 1000 and 1200 nm;

- E. the coating is [chosen from one of the following (i) through (v):
- (i) oxide coating deposited by pyrolysis comprising tin and antimony in a molar ratio Sb/Sn of between 0.01 and 0.5,
  - (ii) coating deposited by pyrolysis comprising a conductive or semiconductive layer with a thickness of 15 to 500 nm formed from a material comprising a metal oxide comprising a doping agent in a ratio of 5 to 100 mol per 100 mol of metal oxide, the metal oxide being selected from one or more of the following: tungsten oxide ( $\text{WO}_3$ ) molybdenum trioxide ( $\text{MoO}_3$ ), niobium pentoxide ( $\text{Nb}_2\text{O}_5$ ), tantalum pentoxide ( $\text{Ta}_2\text{O}_5$ ), vanadium pentoxide ( $\text{V}_2\text{O}_5$ ) and vanadium dioxide ( $\text{VO}_2$ ),
  - (iii) coating deposited by pyrolysis which comprises an anti-reflective interferential stacking comprising, from the glass, a stacking of materials with alternatively high and low refractive indices,
  - (iv) coating which comprises a layer with emissivity of less than 0.3, in particular] a layer deposited by pyrolysis based on fluorine-doped tin oxide, [and
  - (v) titanium nitride coating deposited by pyrolysis];
- F. the coated substrate is bent and/or heat treated, in particular annealed or tempered;
- G. the light reflection factor (LR) is less than 13%;
- H. the dominant transmitted wavelength in the visible spectrum of the coated substance is less than the dominant transmitted wavelength of the uncoated substrate;
- I. the coating deposited on the coloured glass [is such that] if applied to 4 mm thick clear glass the so coated glass would have a light transmission factor measured with Illuminant C of less than or equal to 65%; and
- J. the glazing is for a vehicle of the motor vehicle or train type.

35. (Amended) Glazing according to Claim 28, further characterized by at least one of the following A through J, wherein:

- A. the coloured glass is a glass for which the transmission between the wavelengths 1000 and 1200 nm, for a thickness of 4 mm, is lower by at least 5 points (expressed as %: ratio of the transmitted radiation to the incident radiation) with respect to the transmission between the wavelengths 500 and 600 nm;
- B. the coloured glass is a grey-green-coloured soda-lime glass composed of main glass-forming constituents and of colouring agents which comprises less than 0.4% by weight of FeO and from 0.9 to 1.8% of Fe<sub>2</sub>O<sub>3</sub>, which has an excitation purity of more than 5% and which exhibits, under Illuminant A and for a glass thickness of 4 mm, a light transmission (LTA4) of greater than 30%, a selectivity (LTA/ET) of greater than 1.55 and an ultraviolet radiation transmission (UVT4) of less than 10%;
- C. the coating is a coating deposited by chemical vapour deposition;
- D. the coating is such that its transmission between the wavelengths 500 and 600 nm on clear glass with a thickness of 4 mm is higher by at least 3 points (expressed as percentage: ratio of the transmitted radiation to the incident radiation) with respect to the transmission between the wavelengths 1000 and 1200 nm;
- E. the coating is [chosen from one of the following (i) through (v):
  - (i) oxide coating deposited by pyrolysis comprising tin and antimony in a molar ratio Sb/Sn of between 0.01 and 0.5,
  - (ii) coating deposited by pyrolysis comprising a conductive or semiconductive layer with a thickness of 15 to 500 nm formed from a material comprising a metal oxide comprising a doping agent in a ratio of 5 to 100 mol per 100 mol of metal oxide, the metal oxide being selected from one or more of the following: tungsten oxide (WO<sub>3</sub>) molybdenum

trioxide ( $\text{MoO}_3$ ), niobium pentoxide ( $\text{Nb}_2\text{O}_5$ ), tantalum pentoxide ( $\text{Ta}_2\text{O}_5$ ), vanadium pentoxide ( $\text{V}_2\text{O}_5$ ) and vanadium dioxide ( $\text{VO}_2$ ),

(iii) coating deposited by pyrolysis which comprises an anti-reflective interferential stacking comprising, from the glass, a stacking of materials with alternatively high and low refractive indices,

(iv) coating which comprises a layer with emissivity of less than 0.3, in particular] a layer deposited by pyrolysis based on fluorine-doped tin oxide, [and

(v) titanium nitride coating deposited by pyrolysis];

F. the coated substrate is bent and/or heat treated, in particular annealed or tempered;

G. the light reflection factor (LR) is less than 13%;

H. the dominant transmitted wavelength in the visible spectrum of the coated substance is less than the dominant transmitted wavelength of the uncoated substrate;

I. the coating deposited on the coloured glass [is such that] if applied to 4 mm thick clear glass the so coated glass would have a light transmission factor measured with Illuminant C of less than or equal to 65%; and

J. the glazing is for a vehicle of the motor vehicle or train type.

38. (Amended) Glazing according to Claim 28, further characterized by at least one of the following A through J, wherein:

A. the coloured glass is a glass for which the transmission between the wavelengths 1000 and 1200 nm, for a thickness of 4 mm, is lower by at least 5 points (expressed as %: ratio of the transmitted radiation to the incident radiation) with respect to the transmission between the wavelengths 500 and 600 nm;

B. the coloured glass is a coloured soda-lime glass composed of main glass-forming constituents and of colouring agents which comprises from 0.40 to 0.52% by weight of  $\text{FeO}$  and which exhibits, under Illuminant A and for a



glass thickness of 4 mm, a light transmission (LTA4) of less than 70%, a selectivity (LTA/ET4) of greater than 1.65 and an ultraviolet radiation transmission (UVT4) of less than 8%;

- C. the coating is a coating deposited by chemical vapour deposition;
- D. the coating is such that its transmission between the wavelengths 500 and 600 nm on clear glass with a thickness of 4 mm is higher by at least 3 points (expressed as percentage: ratio of the transmitted radiation to the incident radiation) with respect to the transmission between the wavelengths 1000 and 1200 nm;
- E. the coating is [chosen from one of the following (i) through (v):
  - (i) oxide coating deposited by pyrolysis comprising tin and antimony in a molar ratio Sb/Sn of between 0.01 and 0.5,
  - (ii) coating deposited by pyrolysis comprising a conductive or semiconductive layer with a thickness of 15 to 500 nm formed from a material comprising a metal oxide comprising a doping agent in a ratio of 5 to 100 mol per 100 mol of metal oxide, the metal oxide being selected from one or more of the following: tungsten oxide ( $\text{WO}_3$ ) molybdenum trioxide ( $\text{MoO}_3$ ), niobium pentoxide ( $\text{Nb}_2\text{O}_5$ ), tantalum pentoxide ( $\text{Ta}_2\text{O}_5$ ), vanadium pentoxide ( $\text{V}_2\text{O}_5$ ) and vanadium dioxide ( $\text{VO}_2$ ),
  - (iii) coating deposited by pyrolysis which comprises an anti-reflective interferential stacking comprising, from the glass, a stacking of materials with alternatively high and low refractive indices,
  - (iv) coating which comprises a layer with emissivity of less than 0.3, in particular] a layer deposited by pyrolysis based on fluorine-doped tin oxide, [and
  - (v) titanium nitride coating deposited by pyrolysis];
- F. the coated substrate is bent and/or heat treated, in particular annealed or tempered;

- G. the light reflection factor (LR) is less than 13%;
- H. the dominant transmitted wavelength in the visible spectrum of the coated substance is less than the dominant transmitted wavelength of the uncoated substrate;
- I. the coating deposited on the coloured glass [is such that] if applied to 4 mm thick clear glass the so coated glass would have a light transmission factor measured with Illuminant C of less than or equal to 65%; and
- J. the glazing is for a vehicle of the motor vehicle or train type.